SEQUENCE LISTING

<110> BERENS, STEPHAN
      KALINOWSKI, JORN
      PUHLER, ALFRED

<120> CORYNEBACTERIUM GLUTAMICUM STRAIN WITH
      ENHANCED SECRETION ACTIVITY

<130> MAS/21123/280248

<140> 09/852,053
<141> 2001-05-10

<150> EPO 00110021.3
<151> 2000-05-12

<160> 24

<170> PatentIn Ver. 2.1

<210> 1
<211> 1960
<212> DNA
<213> Corynebacterium glutamicum

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<221> misc_feature
<222> (34)..(1944)
<223> secD

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<213> Corynebacterium glutamicum

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<211> 637
<212> PRT
<213> Corynebacterium glutamicum

<220>
<221> PROPEP
<222> (1)..(637)
<223> secD

<400> 3

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Leu Val Leu Leu Thr Gly Asp Arg Ser Ala Thr Pro Lys Leu Gly Ile
        35                  40                  45

Asp Leu Gln Gly Gly Thr Arg Val Thr Leu Val Pro Gln Gly Gln Asp
    50                  55                  60

Pro Thr Gln Asp Gln Leu Asn Gln Ala Arg Thr Ile Leu Glu Asn Arg
65                  70                  75                  80

Val Asn Gly Met Gly Val Ser Gly Ala Ser Val Val Ala Asp Gly Asn
                85                  90                  95

Thr Leu Val Ile Thr Val Pro Gly Glu Asn Thr Ala Gln Ala Gln Ser
            100                 105                 110

Leu Gly Gln Thr Ser Gln Leu Leu Phe Arg Pro Val Gly Gln Ala Gly
        115                 120                 125

Met Pro Asp Met Thr Thr Leu Met Pro Glu Leu Glu Glu Met Ala Asn
    130                 135                 140

Arg Trp Val Glu Tyr Gly Val Ile Thr Glu Glu Gln Ala Asn Ala Ser
145                 150                 155                 160

Leu Glu Glu Met Asn Thr Ala Val Ala Ser Thr Thr Ala Val Glu Gly
                165                 170                 175

Glu Glu Ala Thr Glu Pro Glu Pro Val Thr Val Ser Ala Thr Pro Met
            180                 185                 190

Asp Glu Pro Ala Asn Ser Ile Glu Ala Thr Gln Arg Arg Gln Glu Ile
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Thr Asp Met Leu Arg Thr Asp Arg Gln Ser Thr Asp Pro Thr Val Gln
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Ile Ala Ala Ser Ser Leu Met Gln Cys Thr Thr Asp Glu Met Asp Pro
225                 230                 235                 240

Leu Ala Gly Thr Asp Asp Pro Arg Leu Pro Leu Val Ala Cys Asp Pro
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Ala Val Gly Gly Val Tyr Val Leu Asp Pro Ala Pro Leu Leu Asn Gly
            260                 265                 270

Glu Thr Asp Glu Glu Asn Gly Ala Arg Leu Thr Gly Asn Glu Ile Asp
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Thr Asn Arg Pro Ile Thr Gly Gly Phe Asn Ala Gln Ser Gly Gln Met
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Glu Ile Ser Phe Ala Phe Lys Ser Gly Asp Gly Glu Glu Gly Ser Ala
305                 310                 315                 320

Thr Trp Ser Ser Leu Thr Ser Gln Tyr Leu Gln Gln Gln Ile Ala Ile
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Thr Leu Asp Ser Gln Val Ile Ser Ala Pro Val Ile Gln Ser Ala Thr
            340                 345                 350

Pro Val Gly Ser Ala Thr Ser Ile Thr Gly Asp Phe Thr Gln Thr Glu
        355                 360                 365

Ala Gln Asp Leu Ala Asn Asn Leu Arg Tyr Gly Ala Leu Pro Leu Ser
    370                 375                 380

Phe Ala Gly Glu Asn Gly Glu Arg Gly Gly Thr Thr Thr Thr Val Pro
385                 390                 395                 400

Pro Ser Leu Gly Ala Ala Ser Leu Lys Ala Gly Leu Ile Ala Gly Ile
                405                 410                 415

Val Gly Ile Ala Leu Val Ala Ile Phe Val Phe Ala Tyr Tyr Arg Val
            420                 425                 430

Phe Gly Phe Val Ser Leu Phe Thr Leu Phe Ala Ala Gly Val Leu Val
        435                 440                 445

Tyr Gly Leu Leu Val Leu Leu Gly Arg Trp Ile Gly Tyr Ser Leu Asp
    450                 455                 460

Leu Ala Gly Ile Ala Gly Leu Ile Ile Gly Ile Gly Thr Thr Ala Asp
465                 470                 475                 480

Ser Phe Val Val Phe Tyr Glu Arg Ile Lys Asp Glu Ile Arg Glu Gly
                485                 490                 495

Arg Ser Phe Arg Ser Ala Val Pro Arg Ala Trp Glu Ser Ala Lys Arg
            500                 505                 510

Thr Ile Val Thr Gly Asn Met Val Thr Leu Leu Gly Ala Ile Val Ile
        515                 520                 525

Tyr Leu Leu Ala Val Gly Glu Val Lys Gly Phe Ala Phe Thr Leu Gly
    530                 535                 540

Leu Thr Thr Val Phe Asp Leu Val Val Thr Phe Leu Ile Thr Ala Pro
545                 550                 555                 560

Leu Val Ile Leu Ala Ser Arg Asn Pro Phe Phe Ala Lys Ser Ser Val
                565                 570                 575

Asn Gly Met Gly Arg Val Met Lys Leu Val Glu Glu Arg Arg Ala Asn
            580                 585                 590

Gly Glu Leu Asp Glu Pro Glu Tyr Leu Lys Lys Ile His Ala Lys Asn
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Glu Ala Pro Gly Thr Asp Thr Asn Gln Glu Glu Glu Lys
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<213> Corynebacterium glutamicum

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<221> PROPEP
<222> (1)..(403)
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            20                  25                  30

Ile Asp Phe Ile Ala Lys Thr Lys Leu Trp Tyr Trp Ile Thr Gly Ile
        35                  40                  45

Leu Leu Val Ile Ser Ile Leu Phe Ile Ala Ile Arg Gly Phe Ser Leu
    50                  55                  60

Ser Ile Asp Phe Gln Gly Gly Thr Lys Met Ser Met Pro Ala Ser Asp
65                  70                  75                  80

Tyr Ser Thr Glu Gln Val Glu Glu Thr Phe Thr Glu Ala Thr Gly Ile
                85                  90                  95

Thr Pro Glu Ile Val Gln Ile Val Gly Ser Gly Asp Ala Arg Thr Leu
            100                 105                 110

Glu Ile Tyr Ser Glu Arg Leu Ser Asp Glu Asp Val Glu Lys Ala Arg
        115                 120                 125

Leu Ala Ile Tyr Glu Glu Tyr Gln Pro Leu Asn Ser Glu Gly Gln Pro
    130                 135                 140

Ser Pro Asp Ala Ile Gly Asn Ser Thr Val Ser Glu Ser Trp Gly Ser
145                 150                 155                 160

Thr Ile Thr Gln Arg Met Val Leu Ala Leu Ile Ala Phe Leu Val Ile
                165                 170                 175

Ala Ala Ile Tyr Ile Ala Phe Arg Leu Glu Arg Glu Met Ala Ile Ala
            180                 185                 190

Ala Met Ala Ala Leu Val Val Asp Gly Ile Val Ile Ala Gly Ile Tyr
        195                 200                 205
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Ala Val Ile Gly Leu Glu Val Ser Pro Ala Thr Val Ile Gly Leu Leu
210 215 220

Thr Val Leu Thr Phe Ser Ile Tyr Asp Thr Val Val Val Phe Asp Lys
225 230 235 240

Val Arg Glu Asn Thr Glu Gly Phe Glu Gly Ser Arg Arg Arg Thr Tyr
245 250 255

Ala Glu Gln Ala Asn Leu Ala Val Asn Gln Thr Phe Met Arg Ser Ile
260 265 270

Ser Thr Thr Ile Ile Ser Ala Leu Pro Ile Ile Ala Leu Met Val Val
275 280 285

Ala Val Trp Met Met Gly Val Gly Thr Leu Lys Asp Leu Ala Leu Ile
290 295 300

Gln Leu Ile Gly Val Ile Glu Gly Thr Phe Ser Ser Val Phe Leu Ala
305 310 315 320

Thr Pro Leu Leu Val Ser Leu Lys Asn Arg Leu Ser Lys Thr Lys Ala
325 330 335

His Thr Ala Ser Val Met Lys Leu Arg Asp Gly Gln Ser Thr Leu Ile
340 345 350

Asp Ala Thr Pro His Thr Asn Ala Asp Ala Ser Ala His Gly Thr Glu
355 360 365

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Ser Lys Pro Ile Val Asp Asp His Arg Ser Ser Gly Thr Trp Arg Pro
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Gly Arg Ser

<210> 5
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

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<212> DNA
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<210> 24
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<220>
<223> Description of Artificial Sequence: Primer

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